

## APPENDIX A

### Marked-Up Copies of Amendments to Specification

Kindly make the following changes to the Specification:

Page 1, line 5, delete the heading --DESCRIPTION--.

Page 1, line 7, change "1. BACKGROUND OF THE INVENTION" to --1. FIELD OF THE INVENTION --;

Change page 1, line 13 from "The Technical Field" to --2. BACKGROUND OF THE INVENTION--;

Page 3, line 3, delete the heading "Prior Art Disclosures";

Change page 8, lines 9-11 to read:

3. SUMMARY OF THE INVENTION;

Page 8, lines 10-13, delete the headings "Solution According to the Invention" and "Transmission Spectrometer";

Page 10, line 32, delete the heading "*More reflecting surfaces*";

Page 11, line 14, delete the heading "Entrance Aperture Means";

Page 12, line 1, delete the heading "Diffraction Optical Element";

Please amend the paragraph on page 12, lines 3-7 to read:

The at least one diffractive optical element is preferably planar or aspheric whereby it can easily be adapted to said at least one reflecting surface[s] of the front and back sides depending on their particular function.

Page 12, line 17, delete the heading "Focusing Surface";

Page 13, line 1, delete the heading "Light Detecting Means";

Page 14, line 1, delete the heading "The Transparent Body";

Page 15, line 9, delete the heading "Light Absorbing Material";

Please amend the paragraph on page 15, lines 27-33 to read:

Imperfections in the diffractive optical element [is causing a substantial]  
cause a substantial amount of stray light in [all] spectrometers. By  
 arranging the optical elements so that light from the diffractive optical  
 element [can not] cannot be scattered directly onto the light detecting  
 means, inclusion of light absorbing material can eliminate or reduce this  
 highly undesired noise source.

Page 16, line 25, delete the heading "Multi-channel Transmission Spectrometer";

Page 17, line 19, delete the heading "Object Illumination";

Page 18, line 1, delete the heading "Illumination Mode";

Page 18, line 24, delete the heading "Reference Light Source";

Page 19, line 7, delete the heading "Reference Channel";

Page 20, line 10, delete the heading "Reference Light Correction";

Page 21, line 6, delete the heading "Combined Transmission Spectrometer with  
 Distance Sensor";

Please amend the paragraph on page 20, lines 16-20 to read:

Any of the spectrometer [geometry's] geometries described above can include distance sensing means, but in a preferred embodiment, the distance sensing means is combined with a transmission spectrometer, whereby the distance sensing means can reuse the spectral sensing means.

Page 21, lines 27-29, delete the headings "Distance Sensing Means" and "Light Spot Source";

Page 21, line 36, delete the heading "Focusing Means";

Page 22, line 15, delete the heading "Spot Detecting Means";

Page 22, line 31, delete the heading "Converting Spot Size or Spot Position to Object Distance";

Page 23, line 5, delete the heading "Object Distance Correction";

Page 24, lines 1-3, delete the headings "Further Solutions According to the Invention" and "General Multi-Channel Spectrometer";

Page 25, line 23, delete the heading "General Spectrometer with Distance Sensor";

Please amend the paragraph on page 26, lines 29-36 to read:

Preferred embodiments including the same features for this aspect of the invention are similar to those described in the present general and detailed description including the examples. [In particular, the features of the embodiments described in the sections "Transmission Spectrometer",

"Multi-channel Transmission Spectrometer" and "Transmission Spectrometer with Distance Sensor", hereby included here by reference.]

Page 27, line 1, delete the heading "General Multi-channel Spectrometer with Distance Sensor";

Please amend the paragraph on page 28, lines 18-25 to read:

Preferred embodiments including the same features for this aspect of the invention are similar to those described in the present general and detailed description including the examples. [In particular, the features of the embodiments described in the sections "Transmission Spectrometer", "Multi-channel Transmission Spectrometer" and "Transmission Spectrometer with Distance Sensor", hereby included here by reference. ]

Page 28, line 28, delete the heading "Methods of Spectral Measurements";

Page 30, line 14, delete the heading "Methods of Spectral Measurements - Distance Sensing";

Page 34, line 3, delete the heading "Conventional Spectrometer - Prior Art";

Page 34, line 27, delete the heading "Compact Spectrometers - Prior Art";

Page 35, lines 13 and 15-16, delete the headings "Preferred Embodiments" and "Ray-Tracing Simulation of a Compact Transmission Spectrometer";

Page 37, lines 5-7, delete the heading "Ray-Tracing Simulation of Compact Transmission Spectrometer with Multiple Reflective Surfaces and Parallel Front Side and Back Side";

Please change the paragraph on Page 37, lines 4-6 to read:

Other preferred transmission spectrometer [geometry's] geometries will be shown in the following, but will not be substantiated by ray-tracing simulations.

Page 37, lines 9-11, delete the heading "Compact Spectrometer with Optical Elements Positioned Below the Respective Surfaces of the Front Side and Back Side";

Page 37, lines 27 and 28, delete the heading "Compact Spectrometer with Light Absorbing Material into Said Body";

Page 38, line 14, delete the heading "Compact Dual Channel Spectrometer";

Page 39, lines 11 and 12, delete the heading "Compact Spectrometer Unit Combined with Distance Sensing Means";

Page 40, lines 6-7, delete the heading "Compact Dual Channel Spectrometer with Distance Sensing Means";

Page 41, lines 20-21, delete the heading "All Planar Dual Channel Spectrometer with Distance Sensing Means and Reference Light Providing Means";

Please delete page 44, lines 1-4 and insert:

--We Claim:--